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Understanding the Zhejiang industrial clusters: Questions and re-evaluations¹

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General introduction

Under the current climate of rapid industrial development in China, the phenomenon of industrial districts or clusters, or concentrations of businesses involved in the same type of industry, are of significant importance in certain regions. Although it may have existed in a more clandestine manner before the reform of the early 1980's, this phenomenon is a relatively recent one, first emerging around a decade ago, and seeing significant growth and taking on a more concrete structure since the turn of the century.

Studies have therefore only been carried out on this phenomenon in China relatively recently. It could be argued – debatably – that this phenomenon was first acknowledged a long time ago, perhaps even before 1949, when Professor Fei Xiaotong carried out his cross-sectional study “块状经济” (similarly to Alfred Marshal's contribution to industrial districts in France). However, it is only since the turn of the 21st century that Chinese researchers have begun to pay close attention to the subject. They include geographers, notably the analytical work of Professor Wang Jici, geographer at the University of Beijing (WANG Jici, 2001), the economists and sociologists of Sun Yat-sen University, Guangzhou (WANG Jun, 2004), and

¹ Our sincere thanks go to our Chinese colleagues, Professors Wang Jici, Jin Xiangrong, Yu Yingchuan and Sheng Shihao, for their valuable assistance during our field work in Zhejiang in July 2006.

the economists and management specialists at the University of Zhejiang (ZHANG Shuguang and JIN Xiangrong, 2006) to name but a few. A series of publications on this theme can also be found in other regions of China.

On the whole, it can be argued that the general observations about the phenomenon in China have already been made, such as the geographical location of the clusters and the different types of clusters in place. Even though the various proposals for cluster typologies do not concur precisely, the current Chinese approaches to the phenomenon of clusters suggest 4 principal types of industrial clusters².

1. Clusters of traditional, highly integrated firms, which can be found in several regions of China, more often in small towns and rural zones undergoing urbanisation. These clusters are highly specialised solely in the manufacture of consumer goods, such as those found in Fujian or Zhejiang. Industry has become the main economic activity in these rural areas, favouring companies owned by the State which, prior to the reform, was unable to satisfy market demand. The success of these private, rural companies has attracted many others into the market and created a concentration of businesses.

2. High-tech clusters, more often situated in large cities near university centres. These focus mainly on electronics, such as the Zhongguancun area of Beijing or the fibre optics cluster in Wuhan, etc...

3. Clusters of foreign companies, mainly the result of FDI from Taiwan, Hong Kong and Singapore, etc. They bring together a number of other firms with whom they have working relationships, as seen particularly in Guangdong. Sometimes, investors may bring their own parts suppliers with them, moving an entire network into the country. This is especially common among Taiwanese entrepreneurs.

4. SME clusters grouped around large companies, as seen in both the shipbuilding industry in Shanghai and, more recently, the automobile industry in Wuhan, etc.

The problem faced is therefore vast, and there is an immense field for study.

² Here, we have adopted the typology proposed by Professor Wang Jici in his work "*Chuangxin de kongjian* (Innovative spaces : enterprises clusters and regional development)", 2001.

In this study, we have chosen to focus on the first type of business conglomerates, mainly comprising SMEs engaging in the same type of activity – similar to those observed in Europe (and Italy in particular) some thirty years ago. There are numerous zones of highly specialised development in China. However, among these, Zhejiang province is undoubtedly considered the most remarkable, and is seen as a role model in modern evolution towards a market economy.

How have the Zhejiang clusters developed? What are the characteristics of this development? Is it possible to talk about a “third China” along the same lines as the former “3rd Italy” with regard to industrial districts? Do Chinese clusters in fact have any specific characteristics? These are some of the questions that we will look to address today.

I. The Zhejiang clusters: a traditional cluster model?

I.1. A small, rather neglected province which has seen strong autonomous development over the last 20 years

Zhejiang is, in fact, one of the smallest provinces in China (occupying 1.06% of China's land surface). In 2005, it had 48,980,000 inhabitants (according to the *hukou* register), representing 3.75% of the population of China. With hills and mountains accounting for more than 70.4% of the province, and with few natural resources, Zhejiang has been somewhat neglected by the government. Between 1953 and 1978, the region's inhabitants received an average of just 114 Yuan of state aid per person – just over half³ of the national average. In economic terms, Zhejiang has also received the lowest level of state support. Even in the period between 1982 and 1989, which saw economic reform in both urban and rural areas, state investment in Zhejiang represented just 2.5% of the total investment across the country⁴. However, over the last 20 years, the province has risen from 12th to 4th place in China in terms of gross national product. In 2003, Zhejiang had the third highest average revenue per inhabitant in China⁵.

This development is mainly linked to the rapid industrial expansion that this traditionally agricultural region has experienced – an industry based mainly on the province's large number of small, family companies. Zhejiang was the first province in China to see the

³ 52.5% of the national average to be more precise

⁴ SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*, p.2.

⁵ SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*, p.1.

development of industrial family workshops in the mid-1980's. Today, the province has the highest proportion of private companies in China: 92%, compared to a national average of 60%. In 2001, the number of SMEs with sales turnovers of less than 5 million RMB was estimated at 682,000. These businesses employ 5,976,400 people, representing 65% of the industrial labour force⁶. One third of these private companies, which mainly manufacture of consumer goods (socks, cigarette lighters, leather, shoes, toys, hardware products, etc...), are involved in the textiles sector (37.2%). A further 8.6% are involved in the clothing industry, and 6.3% in the manufacture of metal goods⁷.

These SMEs are grouped geographically and specialise in a particular manufacturing sector: one product per village and one sector per region (一镇一品, 一乡一业,). This so-called "compartmentalised economy" (块状经济) can be found in 85 of the 88 towns in the Zhejiang district⁸. In 2001, it was estimated that there were 519 specialised industrial clusters with a production value higher than 100 million RMB⁹.

We will now provide a brief description of these clusters.

I.2. The Zhejiang clusters: a short presentation

Map of the Zhejiang industrial clusters

A number of researchers have proposed 3 distinct zones in the Zhejiang clusters following the endogenous model and spontaneous development¹⁰.

PowerPoint presentation – Zhejiang map and table

Administrative areas	Industrial sectors	Cluster types
Hangzhou	Machines and equipment, electronic communications, household appliances, medical, high-tech	<u>Huangzhou</u> : automobiles; <u>Yan qian in the town of Xiao shan</u> : chemical fibre; <u>Nan yang</u> : umbrellas;

⁶ SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*, p.9.

⁷ SHENG Shihao, *Zhejiang xianxiang*, p.10-11.

⁸ SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*, p.41

⁹ SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*, p.41

¹⁰ see SHENG Shihao, ZHENG Yanwei, *Zhejiang xianxiang*

		<u>Xin tang</u> : bird feather products; <u>Xiaoshan</u> : textiles, automobile parts
Ningbo	Clothing, mechanics, petrochemical industry, etc.	<u>Yuyao</u> : industrial moulds, toys, plastics; <u>Hengjie</u> : watches; <u>Jiangshan</u> : gas appliances; <u>Xianxiang</u> : safes
Shaoxing	Textiles, dyes, medicines, chemicals	<u>Shaoxing</u> : textiles; <u>Zhuji</u> : shirts, shoes; <u>Diankou</u> : hardware; <u>Shangyu</u> : protective clothing; <u>Yuecheng</u> : furniture; <u>Chengzhou</u> : ties; <u>Fengqiao</u> : shirts; <u>Shanxiah</u> : cultured pearls
Jiaxing	textiles, leather and mechanical equipment	<u>Haining</u> : leather; <u>Pinghu</u> : clothing, bags; <u>Xiuzhouqu</u> : silk, synthetic fabrics; <u>Haiyan</u> : machine parts, toys; <u>Tongxiang</u> : woollen jumpers; <u>Jiashan</u> : wood
Huzhou	Textiles, children's clothing, construction materials	<u>Zhili</u> : children's clothing; <u>Chengau</u> : textiles; <u>Nanxun</u> : construction materials; <u>Anji</u> : bamboo products; <u>Linghu</u> : farming

Zhoushan	pisciculture, marine product-based medications, mechanics	<u>Zhoushan</u> : piscicultural product distribution market, medicines, toys, hardware
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The first zone is located in the north of Zhejiang and comprises 5 administrative areas (towns and districts governed from the provincial capital of Hangzhou). The clusters in the economically developed zone are highly dynamic. The large companies are located in Hangzhou, and the high-tech clusters are also in Hangzhou, as well as in Ningbo. This zone also contains towns of specialised SMEs, such as Chengzhou (ties), Yuyao (plastics) and Xiaoshan (textiles), whose production values are the highest among the Zhejiang clusters.

Administrative areas	Industrial sectors	Cluster types
Wenzhou	mechanics, plastics, printing, electrical appliances, leather	<u>Pingyang, town of Xiaojiang</u> : plastics; <u>Cangnan</u> : signage manufacture, salty foods; <u>Ruian, town of Tangxia</u> : automobile and motorcycle parts; <u>Leqing, town of Liushi</u> : low-voltage electrical appliances; <u>Hongqiao</u> : electronics; <u>Panshi</u> : clothing; <u>Beibaixiang</u> : construction materials; <u>Longgang</u> : plastic bags; <u>Yongjia</u> : buttons; <u>Lucheng</u> : cigarette lighters;
Taizhou	automobile and motorcycle parts, craft products, shoes, plastics	<u>Shuijiang Zhaoqiao</u> : plastics,

		<u>Linhai, family village of Qu</u> : multicoloured lights; <u>Sanmen gao</u> : nails
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The second zone covers Wenzhou and Taizhou. These clusters are also developed, but there are sometimes significant disparities between levels of development in different districts. Wenzhou represents an economic model upon which the development of Zhejiang is based, and may well be the first town in China where private companies emerged after the reform. Today in Wenzhou, there are around ten different activity sectors in the industrial clusters: shoes, clothing, lighters, glasses, and so on. In 2001, shoes manufactured in Wenzhou represented 20% of the total Chinese market, with lighters at 90% and razors at 60%. Wenzhou is seen as a benchmark for the importance and dynamism of family SMEs.

Administrative areas	Industrial sectors	Cluster types
Jinhua	mechanics, hardware, agricultural product processing, textiles, clothing	<u>Jinghua</u> : measuring instruments; <u>Dongyang</u> : magnetic materials, suits; <u>Yiwu</u> : clothes, textiles, decorations, shoes...; <u>Yiwu</u> accessories market; <u>Pujiang</u> : clothing; <u>Yongkang</u> : hardware
Quzhou	chemical fertiliser, cement, mechanical equipment	<u>Town of Wucun</u> : shuttlecocks; <u>Shangshan village Shizikou</u> : finishing of...???; <u>Shangfang</u> , <u>Shangshan Huifu</u> : heat treatment; <u>Longyouwu village</u> , <u>Miaoxia</u> : bamboo; <u>Longyou lake</u> ; <u>Diyu village</u> : card paper processing; <u>Jiangshanqing lake</u> : springs; <u>Xiakou</u> : steel;

		<u>Kaihua-Zhangwan</u> : wood products
Lishui	wood processing, craft products, agricultural product processing	<u>Longquan</u> : umbrellas; <u>Qingtian</u> : leather, shoes; <u>Yunhe district</u> : toys

Zone 3 comprises Jinhua, Quzhou and Lishui. Here, the clusters are very young and this is the least developed region of Zhejiang.

The Zhejiang clusters, particularly concentrated in the Wenzhou region, are for the most part developing in rural areas. They focus on low production cost sectors and are mainly concerned with the manufacture of consumer goods.

How have these clusters developed?

I.3. The stages in the development of the Zhejiang clusters:

I.3.1. From the planned economy to the liberal economy: the general framework

Since the first Five Year Plan in 1955, the Chinese economy has been under the direct control of the state. All private economic interests were dismantled. In the countryside, all farmland was henceforth property of the state. Farmers were organised into cooperatives and communes, and paid in “work points” according to their participation in work in the fields. At the same time, traditional activities that were indispensable to farmers’ survival¹¹ (such as crafts and trade) were outlawed in the 1960’s, following the “Great Leap Forward” of 1958, when the Chinese countryside was encouraged to build factories in pursuit of agricultural mechanisation.

¹¹ Since the Ming and Qing dynasties, agriculture and craft have been complementary economic activities in the Zhejiang region, as a response to countryside overpopulation and a lack of natural resources.

These rural factories began to re-emerge in the early 1970's, with the compromise between local collectives and the farmers suffering from poverty. These rural factories were therefore created in the provinces with craft traditions, such as Jiangsu, Guangdong and Zhejiang (社队企业). This type of semi-public economic structure, within the framework of the planned economy, achieved political recognition from the central government in 1975.

With the commencement of economic reform in 1978, the "family responsibility system" (家庭承包责任制) was put in place in the countryside, giving families control over the land. From 1982, land rights were handed back to family units, although the land was not actually owned by the families. Under this system of self-management, it was easier for farming families to organise their agricultural work. This new system of organisation allowed a section of the rural population to adapt to other forms of activity. In order to solve the problem of surplus agricultural population in the countryside, the Chinese government authorised diversification into associated economic activities.

The Chinese countryside was therefore gradually returning to its traditional economic system. Working in the fields became increasingly accompanied by associated activities, which increase the household income. This was the catalyst for the development of specialist agricultural centres and, later, rural companies (乡镇企业). Rural companies, first created in Jiangsu province, are the result of rural factories founded by local communities. From the collective economy, the Sunan model then spread to other regions of China, experiencing significant success in the decade following the economic reform. Across China, between 1979 and 1984, the number and production value of rural companies quadrupled and the work force employed by them doubled.

There was another factor in play, which would help the development of craft and industrial activities. In 1985, the state decided to lower the purchase price for cereals in order to reduce subsidies for urban consumption. As a result, farming the fields gradually became less profitable. An increasing number of farmers were therefore forced to re-evaluate their income generation strategies and look to new economic sectors such as pisciculture, trade and industry. The agricultural sector therefore fell into decline, replaced by industrial and service sectors.

Alongside the flourishing collective rural companies, the birth of private companies¹² constitutes another aspect in the transition of the Chinese economy. Unlike Jiangsu, which is a “small public model”¹³, and Guangdong, whose development was based on foreign investment (mixed capital companies), Zhejiang has adopted another model of development based on the private economy.

1.3.2. The development of the Zhejiang clusters

- from colportage to family workshops

In the mid-1970's, colportage (crafts, small traders), an ancient tradition that predates the communist regime, began to reappear. Until the mid-1980's, private economic activity was still highly contested in China. The Zhejiang farmers, particularly those from Wenzhou, organised themselves into family units to sell their products: embroidery, scales, cotton mattress covers, etc. Colporteurs travelled throughout China and brought back success. During this initial period of the liberal economy, “black market” family workshops, with a workshop at the front and a shop behind (前厂后店), began to accumulate capital through trade, then moved into manufacturing to satisfy market demand. To avoid “the capitalist way”, they attached themselves to rural companies in the locality or region and local collective companies. This is what is known as “borrowing the red hat”¹⁴. These fictitious collective companies, later contested by the government, were stamped out between 1982 and 1984¹⁵.

From the second half of the 1980's, economic policy became more tolerant towards private companies. Zhejiang moved more towards manufacturing. The activities that developed, based mainly on local traditional activities or on technically undemanding

¹² Private companies are defined as independent trader and businesses employing more than 7 people. See SHI Jinchuan, *Zhongguo minying jingji fazhan baogao*, p.8.

¹³ LI, Youmai and PAVE, Francis, “*La Chine actuelle et le marché-L'émergence des PME familiales dans la dynamique de développement économique*” (Modern China and the emerging market of family SMEs in the dynamic of economic development), *Annales des Mines*, mars 1999, 29-42.

¹⁴ CAO Zhenghan in ZHANG Shuguang and JIN Xinagrong, *Zhongguo zhidu bianqian de anli yanjiu* (Case studies in China's institutional change), pp. 95-107.

¹⁵ Eight Wenzhou entrepreneurs were prosecuted for illegal economic activity in 1982. See Cao Zhenghan, in ZHANG Shuguang and JIN Xinagrong, p106.

manufacturing processes, were more effective in generating immediate profits to meet the basic needs of the local population.

In Zhejiang, from the mid-1980's, family workshops were no longer able to deal with market competition on their own. On the one hand, their products were often of poor quality; on the other hand, these isolated family workshops were limited by their access to capital, their technical ability, and their supply and sale networks. When a family workshop was no longer able to meet its demands, it would entrust a proportion of its orders to close relatives. Over time, these workshops collaborated more and more to meet the needs of the market.

A new type of company was therefore born: co-operative capital companies (股份合作企业). In the pursuit of political correctness, local authorities called this new type of business "collective enterprises". Although labelled as "public", these companies were in fact private associations, comprising close relations. In reality, these new family companies represented a movement from the nuclear family to the extended family. At the end of 1997, there were more than 22,000 groupings of this type in the Wenzhou region¹⁶, giving rise to three types of company: family workshops working together by pooling their capital and equipment; family workshops which remained autonomous and worked together solely for supplies and sales; and family workshops investing in the creation of a new company in which they became shareholders¹⁷.

- from craft workshops to industrial districts

In Zhejiang, these family companies began to group together geographically by specialising in a particular manufacturing sector: shoes, lighters, leather, and so on. This was the beginning of the Zhejiang industrial clusters, characterised by a "compartmentalised economy"¹⁸ (块状经济), to use the definition given by the Zhejiang authorities¹⁹. In this region, where there is a high level of geographical mobility (emigration abroad and colportage within China), the trade activities and geographical movements of colporteurs, travelling traders and foreign-based Chinese nationals originating from Zhejiang allowed for the spread of information about the region's products. Once this information was disseminated throughout

¹⁶ CAO Zhenghan in ZHANG Shuguang and JIN Xinagrong, p113.

¹⁷ CAO Zhenghan in ZHANG Shuguang and JIN Xinagrong, p107-116.

¹⁸ This concept is defined by the Zhejiang province Office of Policy Research.

¹⁹ A zone containing a grouping of more than 10 companies manufacturing the same or complementary products, and whose annual production values exceed 100 million Yuan. Term taken from Fei Xiaotong?

the province, it proved invaluable to the regional economy²⁰. If a product had potential in the market, it went into production and was quickly copied by neighbouring businesses. Below is an eyewitness statement about the history of the cigarette lighter sector.

*In the early 1990's, foreign-based Wenzhou emigrants returned to their native region and introduced their compatriots to foreign-manufactured lighters. This is how Wenzhou's lighter manufacturing industry began – a product requiring little investment and technical knowledge. The sector peaked in 1993, at a time when 3,500 companies were created spontaneously in this promising niche.*²¹

This development was therefore a gradual one, based on the high levels of product specialisation and geographical concentration of family companies described earlier: “one product per village and one sector per region” (一镇一品, 一乡一业) – hardware in Yongkang, specialist markets in Yiwu and circuit breakers in Leqing, etc. (see section 1 above).

A significant change in scale was only noticeable in the 1990's and beyond, and more specifically following Deng Xiaoping's visit to Shenzhen in 1992, which was seen as an acknowledgement and encouragement of China's new liberal economy. This economic liberalisation allowed farmers and artisan-entrepreneurs to contemplate commercial and industrial activities on a national (and later international) scale. This was the catalyst for a significant explosion of clusters in Zhejiang.

How did this transition happen and what was the basis for these clusters?

- From industrial districts to clusters

The aforementioned phenomenon of the “compartmentalised economy”, comprising groupings of family companies in specialised zones, provided the basis for the development of the Zhejiang industrial clusters. Under the new liberal economy, the movement would be characterised by changes in types of company.

Alongside the existing family companies, the 1990's saw the emergence of new types of businesses: limited responsibility companies or industrial groups. From the beginning of

²⁰ LI, Youmai and PAVE, Francis, p.36-37.

²¹ Interview carried out at a lighter manufacturing company in Wenzhou, July 2006.

the 1990's, a number of large, market-leading companies began to absorb smaller sub-contractors. In 1995, for example, the number of shareholders in the Chint company of Leqing, Wenzhou – a manufacturer of electrical products – rose from 5 (all family members) to 86, following its incorporation of 56 companies into the group²². Today, it is the largest low- and high-voltage electrical equipment manufacturing company in China, and sits at the helm of an entire local manufacturing network. With its high presence on the Chinese market and its current attempts to break into the international market, Chint, along with several other similar companies in the Wenzhou zone in southern Zhejiang, represents a model of a complex cluster involving clients and all types of suppliers.

This is, of course, just one example – albeit a remarkable one – of the changes taking place in the Zhejiang clusters. This increased power can also be observed in many other shoe-, lighter-, plastic- and hardware-manufacturing clusters, opening up a vast field of study that remains relatively untouched.

It should be noted that, whilst the situation is changing rapidly, the observed concentration and increasing complexity of the clusters is accompanied by a level of diversification in models, craft forms, family forms and privately financed companies. Along with these, new models of development can be observed, such as those in the field of trade as we will see further on.

Whatever the case may be, the Zhejiang industrial districts seem to have played a major role in the forms of transition between a state-controlled economy and a private economy. In 2000, 89.3% of companies in the province were private companies, representing 78.9% of the province's total production value. The private companies in the clusters, mostly SMEs, form the pillar of Zhejiang's economy. In many respects, the province's development model, and especially that of the Wenzhou zone, is seen by researchers and the authorities as a benchmark, and is presented as a sort of role model for other provinces to follow, rather like the "third Italy" model in Europe some thirty years ago.

From this point of view, it is possible to see Zhejiang as a sort of "Third China"?

What therefore can we learn from the Zhejiang clusters and what, if any, are their specific characteristics? This is the second area that we will look to address now.

²² Interview with the Associate Director of the Chint company, July 2006.

II. The Zhejiang clusters: a “Third China”? Similarities, differences and theoretical revisions

The brief retrospective above relating to the development of the Zhejiang clusters presents many strong similarities with the phenomena observed in the development of European clusters. These similarities in terms of observed dynamics must not, however, obscure the significant differences that exist. These differences relate to the development structures of the districts – the very factors that render the clusters highly specific.

We will now look at each of these two points in turn.

II. 1. The Zhejiang districts: clusters like any other?

In many ways, the Zhejiang districts appear to have many similarities with the development observed in Europe and Italy. In this sense, they support the theory of industrial districts as proposed by Italian researchers such as Beccattini, Bagnasco or Garofoli, etc...

The Zhejiang clusters, like the districts in Italy or France (Ganne, Courlet, etc.), have arisen in unexpected locations – in traditionally rural zones where there was previously very little industry.

These industries developed in zones that had been relatively neglected by the government. It is precisely because they were practically left alone that these zones were forced to develop activities based on the knowledge that they already possessed.

The development of activities to complement agriculture was of paramount importance for these low-resource, neglected zones. Indeed, for many of the villages and small-to-average size towns, it was simply a question of survival.

In order to guarantee their survival, these zones adopted a range of complementary activities, either for processing and selling their agricultural products, or as a supplement to agriculture. Examples include small-scale manufacturing in family workshops and the external sale of processed products outside the agricultural season via colportage. These zones

gradually became structured around groups of small craft workshops and family units. Through further development, these in turn gave rise to series of groups of SMEs.

These groupings went on to develop in a highly endogenous manner, taking shape and growing through the mobilisation of internal resources.

They organised themselves around poles of specialised production, compensating for their small manufacturing facilities by concentrating activities of the same type in the same local area.

The implementation of small-scale industrial activities in relatively neglected rural zones; the “spontaneous” development of family workshops and SMEs in the “urbanised countryside”; significant specialisation in manufacturing and the strong endogenous growth of activities: these are all the ingredients that characterise and determine the birth and development of industrial districts.

Despite these areas of similarity it must be remembered that, during their rapid expansion, the Zhejiang clusters adopted certain previously unseen measures. It is in this way that they differ significantly, and as such demand the updating or revision of certain existing theoretical approaches to this question. We will now attempt to draw up a definitive list of these differences.

II. 2. Distinguishing features and differences of the Zhejiang clusters.

It is our belief that the Zhejiang clusters are unique in five areas:

The absence of strong links between companies; the importance of trade structures; the role of both national and international endogenous networks; the nature of the labour market; the role of local collectives.

We will look at each of these points in turn.

II.2.1 The apparent absence of strong links between companies

One of the central points in the theory of industrial districts is the belief that the accumulation of companies specialising in the same activity in the same location allows these companies to develop innovative systems of cooperation, be they formal or informal. Indeed, it is this very fact that constitutes the competitive advantage of districts. This system of intercompany links compensates for what the companies lack in size through a genuine economy of transaction costs. This close relationship permits more rapid adaptability and flexibility than is the case with isolated companies, and defines the development of new types of synergies, under which districts draw upon their efficiency and create their differential competitive advantages. The key to districts' success lies in these forms of intercompany cooperation.

It would appear, however, that this is not true in the case of the Zhejiang clusters.

Although a high concentration of workshops and SMEs working in the same industrial sector can be observed in each of the province's specialised clusters, the fiercely independent, even secretive culture that exists both between and within these firms is surprising. Besides client-supplier type relationships, few other types of links can be observed, and there is apparently very little mutual assistance and cooperation. There are only a few scattered groupings of entrepreneurs, forming loose information centres or acting as interlocutors with public collectives (see point 5 below).

There have been some attempts to analyse this absence of links between companies in more detail. The first studies carried out in this area²³ demonstrate the weakness of intercompany links other than the traditional client-supplier economic relationship. Other forms of business and cultural relationships that, for example, form the very basis of the economic effectiveness of Italian districts and their innovative dynamics, appear to be almost completely absent in this case. It would also appear that family structures – the dominant force in the companies of Zhejiang – contribute to the insular nature of the companies and to their isolation.

This poses a number of questions. If intercompany relationships (other than economic ones) are of such little importance, to what can the dynamism of these zones be attributed? What “advantage” do these companies gain from being grouped together? Are access to

²³ See our first studies in Zhejiang and interviews with researchers and entrepreneurs in Hangzhou, Yiwu, Zhonkan and Wenzhou in summer 2006, made possible with the help of the the Center For Research of Private Economy of Zhejiang.

services and the availability of labour sufficient criteria in this case? In the absence of horizontal local relationships, what other types of channels define and galvanise this type of grouping? What other formal or informal links exist? It seems that the Zhejiang model operates in complete opposition to the central features of Italian districts, a fact that causes further problems in our understanding of the phenomenon.

II.2.2 the importance of the trade dimension

Whilst there are few observable intercompany links in the Zhejiang clusters, these clusters are notable for the innovative role played by trade poles and networks. A number of clusters have implemented their own trade structures for locally manufactured products. In Zhejiang, some towns have formed their own clusters – not for the manufacture of industrial goods, but for the trade of goods produced on a provincial, even national level. A number of similar networks are currently developing in other provinces.

This phenomenon is clearly illustrated by the city of Yiwu, situated at the heart of Zhejiang.

Following the re-opening of the village market in 1979, the 1980's saw the city of Yiwu open an accessory market (tools, small household goods...). Initially, in attempt to retain the local colportage tradition, the market was supplied by the travelling confectionery traders²⁴ who wandered the regions of China. Providing the village with new items, which were often unavailable in the shops during this time of shortage, these traders' products began to be manufactured locally by family workshops. The products were then sold to the local market at highly competitive prices. This was the beginning of the accessory market, which led to the development of craft workshops and later to small companies. From this consumer goods market, the city developed a specialist clothing market, and later a utensil market. A decade later the city was filled with enormous exhibition centres, open 350 days per year, providing the specialised industries of Zhejiang – as well as those from other parts of China – with a huge collective market. In fact, this market is so large, that major international companies such as Carrefour and Walmart have recently established their Asian distribution

²⁴ The history of Yiwu's market dates back to the Qing dynasty and the bartering tradition: sweets for bird feathers (鸡毛换糖). Farmers would produce sweets and sell them wherever they could, especially in Jiangxi, where they would be exchanged for bird feathers.

facilities in the city. In only a few years, the city of Yiwu has made trade its principal activity, and has become a sort of cluster dedicated to trade.

Although these clusters do not have a highly formal structure, their existence will give rise to a number of specialised activities in districts around a local market, creating future clusters and demonstrating the strength of the specific link between manufacturing and trade.

The importance (and in the case of Yiwu, supremacy) of the trade dimension itself poses a number of questions.

Can the performance of the Zhejiang clusters be attributed to this new link that seems to have been discovered between manufacturing and trade? Are the Zhejiang clusters not simply updating the important link with trade that has always been present in these rural areas, as seen in the colportage and trader traditions, and applying this notion to workshops and small companies? Is it not the case that the Zhejiang clusters are developing, albeit on a different level, and adapting for their own context the re-emerging market structures already noted by some researchers? (see THIREAU I. 2003) Can this organised trade dimension not be attributed to international globalisation and the increasing importance of global networks?

It again appears that the traditional theory of clusters cannot provide answers to these phenomena.

It is our belief that the Zhejiang clusters have led to the emergence of a new field of study for theoretical reflection.

The theory of clusters, based on an analysis of European districts, focuses primarily – indeed exclusively – on the organisation and optimisation of production systems²⁵, according to the formal and informal models outlined above. The theory makes little mention of trade, and where it does, it is only as a secondary consideration. Yet is it not the case that, alongside companies and production systems, one of the principal defining characteristics observed in the Zhejiang clusters is the presence of markets and systems of trade, organised on a mainly local level?

²⁵ Has the term LPS, or "local production systems" not also been used in France to describe industrial districts?

Is it not true that Chinese clusters are defined not only by their organised forms of production, but also by their local trading systems and their insistence on a strong link between manufacturing and trade?

With its over-emphasis on systems of production, the theory of clusters may only be helpful in this case as an aid to any analysis and reflection, which in turn must look much more closely at the impact of the dynamics created by the phenomena of trade and the socio-economic relationships that they engender. These phenomena may also compensate for the structural and production system dynamics found in other types of cluster, particularly those in the west.

II.2.3 the role of national and international exogenous networks

Another defining characteristic of the Zhejiang clusters – and one which again sets them apart from traditional types of districts – is undoubtedly the importance of the exogenous networks that have developed in the province, some of which are on an international scale.

It has already been shown, of course, that the Zhejiang industrial districts, like many others around the world, were founded upon a strong local base. However, the way in which they have opened up to the outside world seems to have been much more rapid, and on a much larger scale.

In the late 1980's and early 1990's, these districts implemented a policy of opening up to the north, north-east and north-west of China. They subsequently expanded their networks – especially their trade networks – on a national scale, and almost as quickly onto an international scale.

These networks all have one thing in common: they remain highly local or provincial in nature, and almost exclusively comprise people of Zhejiang origin. In this respect, the Wenzhou zone is unique in its successful development of large system of international branching, reaching as far as major western cities such as Paris – networks consisting mainly of people of Wenzhou origin.

This point does, however, have a counterbalance – namely a tendency to resist external investment. In Wenzhou, there are almost no companies from other provinces of

China or foreign companies from other countries²⁶. The province's social structure is therefore very strong. There is no doubt that this strong, particularly local culture, founded on family links and geographical origin (“同乡”), forms the basis for the regulation of important external networks.

In the current context of globalisation, it is clear that the relationship between local organisation and global networks that seems to characterise the Zhejiang clusters goes some way to explaining their performance.

II.2.4 the labour market

Although the strong growth of the Zhejiang clusters was originally supported only by a local, rural workforce, recent trends have seen an increase in the use of external labour. This trend is of course not unique to the Zhejiang clusters, and can be applied to other industrial development zones and clusters in China. However, in this case it should be highlighted that a movement of this size is specific to the development observed in the clusters of this region.

Very few Chinese studies have so far dealt with the labour market and human resources in clusters²⁷.

The birth of rural companies in the 1980's gave rise to the emergence of a local rural workforce, both in Zhejiang and elsewhere. At the beginning of this decade, following the implementation of the family responsibility system, many farmers changed to other economic activities in the industrial and service sectors. This agricultural exodus was also accompanied by intraprovincial mobility – “leaving the land without leaving the countryside” (离土不离乡).

Then, in a climate of increasing liberalisation and economic development, there was a change in the nature of internal migration in China. From 1985 onwards, there was an increase in interprovincial mobility – “leaving the land and the countryside” (离土又离乡). The migratory flow was therefore mainly from rural areas to urban areas.

²⁶ SHI Jinchuan, *Zhongguo minying jingji fazhan baogao*.

²⁷ We are aware of two studies that have been carried out in Zhejiang since 2000. The first looked at 100 private companies in Hangzhou, Wenzhou, Taizhou, Quzhou and Yuyao, focusing on social protection and social advantages for employees in private companies. The second looked at 104 clusters in Zhejiang, and studied the mobility of the rural labour force. SHI Jinchuan, *Zhongguo minying jingji fazhan baogao*, vol2, chapter 13.; XU Weixiang, TANG Gennian, “*Jiyu chanye jiqun chengzhang de Zhejiangsheng nongcun laodongli zhuanxi shizheng yanjiu*”

Today, the Zhejiang labour market mainly comprises migrant farmers from the region and from other provinces. Without exception, the workforces of the companies that we visited in district-level (县级市) or regional-level (地级市) cities comprised between 70% and 80% migrant workers. XU Weixiang and TANG Gennian's study on 219 manufacturing units in Zhejiang's 104 clusters confirms that, of 38,010,000 employees, 82.89% are from an agricultural background, and that 34.56% of these do not possess a Zhejiang *hukou*. In this climate of high geographical mobility, especially from one rural area to another or to small and medium-sized cities, a significant rate of professional retraining can be observed, as seen in large cities. When migrants arrive in Zhejiang, the majority enter the industrial sector (manufacturing, construction), with the second largest number entering the service sector (trading, hospitality). Their salary and living and working conditions are at least equal to, if not superior to, those in large conurbations such as Shanghai or in other clusters such as Guangdong. In order to attract its workforce, Zhejiang now allows urban hukou registration for migrant agricultural workers.

Whilst this is common phenomenon in a number of clusters, its size and distinctiveness in Zhejiang is a distinguishing feature of these clusters. This remains, however, an unexplored area of study.

How does the process of migration to Zhejiang work? Are the patterns of migration largely temporary or more permanent and based on new career paths? How does this migrant population integrate into the strong social structure of the local residents? All these aspects constitute points for analysis via a comparison between the situation in Zhejiang and the labour markets of clusters in other Chinese provinces (Guangdong, Shandong, etc.) or in other types of cities.

II.2.5 the specific role of politics and local collectives

The final area in which the Zhejiang clusters seem distinctive is the form of governmental intervention that can be observed, particularly in terms of local collectives. To varying degrees, local collectives seem always to have played a relatively decisive role, either as interveners, arbitrators or in a complementary role.

As we saw in section one, although economic reform had already been in progress for a decade, it wasn't until the end of the 1990's that private companies were able to operate without needing the approval of local politicians. These politicians were able to engage in the so-called "red hat" practice, designed to give a "collective" label to activities that were actually private.

In due course, under the transitional phase, the economic role of local collectives could be seen on several levels:

- a decision-making role, in terms of resource allocation (authorising sales, approving projects, granting tax incentives to companies, etc.) and decisions about areas of specialisation;

- a motivational role, by putting in place resources and equipment connected with the relevant manufacturing activities (an example being the market halls put in place by the cities of Yiwu, Yongkang, etc...).

- a limited coordination role, without direct intervention on economic actors.

From this point of view, the Zhejiang model appears to represent a highly specific model of interaction between economics and politics. Whilst, as already mentioned, 90% of companies are privatised, there is a significant internal overlap between companies and the government. Many private companies, especially larger ones, have created a Party committee within the company in pursuit of political correctness. Dating back to 1987, this phenomenon was widespread in the 1990's, especially among large companies. The Party's recognition of the private economy, at its 15th Congress in 1997, seems only to have accelerated this movement. In 2004, more than 2000 companies in Wenzhou had a Party committee (党支部), and 28 large companies had a Party commission (党委)²⁸. At the same time, private entrepreneurs began to join political bodies and were encouraged to take official posts. In Zhejiang, there were around 20 private entrepreneurs present at the 10th Popular Assembly and at the Political Consultative Conference (政治协商会议). This is evidence of the complex relationship between economics and politics in the different areas of government.

²⁸ Further up the CCP hierarchy due to the number of company employees.

It is clear that the Zhejiang industrial clusters are highly distinctive in the important role played by politics and local collectives.

This is a far cry from the theoretical model seen in Italian districts, as proposed at the time by Beccatini, Garofoli, etc. This theory accords only a secondary or minor role to the interventions of collectives (as opposed to the theory of clusters, which calls for certain forms of regulation and governmental intervention). Instead, an industrial district should be created “spontaneously” by the principal economic actors (i.e. companies), with no intervention from political actors.

Yet the strength of the Zhejiang clusters appears to lie, as is often the case in China, in the dynamic alliance between private actors and forms of governmental intervention. Is this an example of the occasionally proposed notion of “State Capitalism”? Their dynamism can be explained to some extent by the support given to specialisation poles by the various public collectives. This support from public collectives has allowed the specialised cities of Zhejiang to create their own markets for specific products (such as in Yongkang, a city specialising in hardware, etc.). Indeed, it was the Yiwu Municipality that had the idea of developing a permanent market fair system, establishing the city as a trade cluster. The role of local collectives is far from marginal, yet neither is it interventionist. In this case, they play an essential complementary role, along the lines of observations made in other Chinese clusters (see XU Jian-niu, thesis in progress).

This system of public intervention, in which collectives no longer intervene directly as economic actors, but play a powerful accompanying role to specialised development, represents one of the most original features of the Zhejiang clusters.

Conclusion

The jewel in the crown of Chinese industrial development, Zhejiang is held up as a benchmark to other provinces in the country, and its industrial districts have developed in a unique and original manner. This therefore offers us a new perspective on, and leads us to reconsider the approaches to districts found in historical models. These are largely dependent on the geographical locations in question, which are mostly European, or more specifically Italian.

It cannot be denied that Zhejiang has experienced a phenomenon of the “industrial district” type. Taking into account a range of factors, the province owes much of its strong growth to the extraordinary expansion of its highly concentrated zones of small industries. These extremely specialised zones can be found in all areas of the region, and the distribution of activities in the province is characterised by significant differences in the goods manufactured (following the principle of “one product per village and one sector per region” (一镇一品, 一乡一业)). Another important factor is that Zhejiang, a province that has been relatively neglected by the central government, has developed autonomously, creating its own avenues for expansion. The province has seen the development of a genuine dynamic of industrial districts, a dynamic whose size, importance and intensity clearly single out the Zhejiang clusters as an important benchmark in the range of types of cluster observed around the world.

With this in mind, it is also important to stress the originality and uniqueness of the Zhejiang model, and how it appears to be in conflict with certain central aspects of the theory of industrial districts whilst developing new synergies in new contexts.

It can be seen that the most significant difference relates to the weakness of intercompany co-operation observed in the Zhejiang districts – a central feature of the Italo-European theory of industrial districts. It is precisely because entrepreneurs in a given specialised zone developed both formal and informal, local systems of co-operation that these districts performed well. Yet in Zhejiang, a lack of co-operation between companies seems to prevail. Their success cannot therefore be attributed to this area.

The relationships involved in the development of the Zhejiang clusters are of an entirely new type, and until now little light has been shed upon them. It has been shown that, in the Zhejiang clusters, there is an unusual role accorded to the trade dimension, alongside the manufacturing dimension, the importance of national and international external networks, and the influence of local collectives both within their locality and from a distance.

However, rather than looking at each specific difference in turn, it is important to understand that it is more a question of a shift in these clusters’ centre of gravity that has given rise their unique structural and dynamic configuration. The Zhejiang clusters’ dynamic lies not so much in how their production is organised, but in the relationship between manufacturing and trade structures, networks and politics, developed as a tool for regulation

and stimulation. Could it be argued that the presence of strong trade structures, organised and controlled by local collectives, plays the same regulatory/dynamic role here as the system of co-operation/competition at production level does in western clusters? Rather than relying on direct, formal or informal collaboration between companies, the Zhejiang model constitutes a **third system of regulation**, which allows the circulation of important production and trade information, avoids competition, is open to innovation, etc... This whole system is supplied by external networks, which play a continuing motivational role by guaranteeing market exposure.

This unique organisational model with its own dynamic requires us to reassess the traditional approaches to industrial districts in a new light.

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